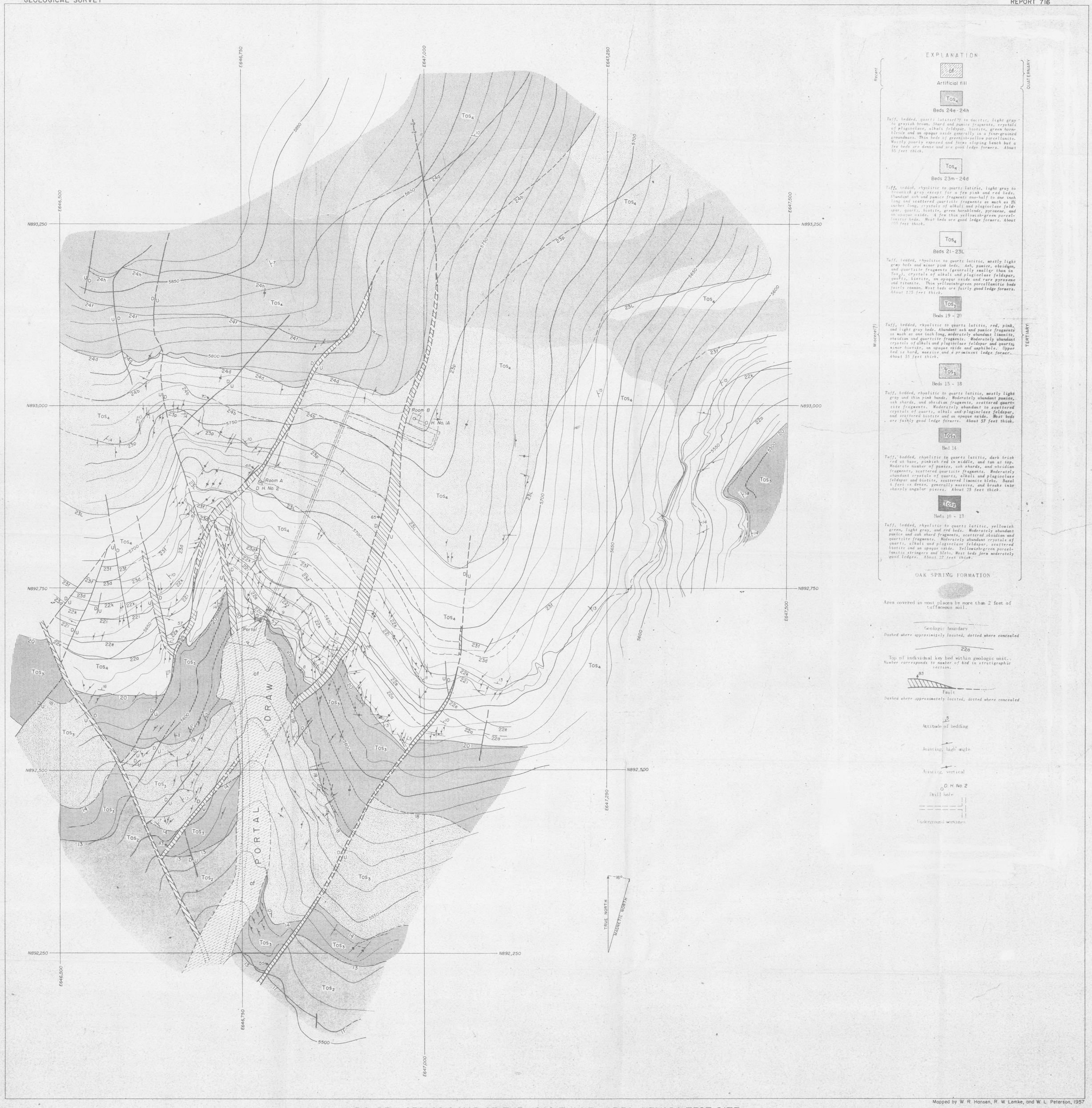
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

TRACE ELEMENTS INVESTIGATIONS
REPORT 716



EXPLANATION

Recent — QUATERNARY

of — Artificial fill

Tos_4 — Beds 24e - 24h

Tuff, bedded, quartz latitic(?) to dacitic, light gray to grayish brown. Shard and pumice fragments, crystals of plagioclase, alkali feldspar, biotite, green hornblende and an opaque oxide generally in a fine-grained groundmass. Thin beds of greenish-yellow porcellanite. Mostly poorly exposed and forms sloping bench but a few beds are dense and are good ledge formers. About 55 feet thick.

Tos_4 — Beds 23m - 24d

Tuff, bedded, rhyolitic to quartz latitic, light gray to brownish gray except for a few pink and red beds. Abundant ash and pumice fragments one-half to one inch long and scattered quartzite fragments as much as 1½ inches long, crystals of alkali and plagioclase feldspar, quartz, biotite, green hornblende, pyroxene, and an opaque oxide. A few thin yellowish-green porcellanitic beds. Most beds are good ledge formers. About 105 feet thick.

Tos_4 — Beds 21 - 23L

Tuff, bedded, rhyolitic to quartz latitic, mostly light gray beds and minor pink beds. Ash, pumice, obsidian, and quartzite fragments (generally smaller than in Tos_3), crystals of alkali and plagioclase feldspar, quartz, biotite, an opaque oxide and rare pyroxene and titanite. Thin yellowish-green porcellanitic beds fairly common. Most beds are fairly good ledge formers. About 105 feet thick.

Tos_3 — Beds 19 - 20

Tuff, bedded, rhyolitic to quartz latitic, red, pink, and light gray beds. Abundant ash and pumice fragments as much as one inch long, moderately abundant limonite, obsidian and quartzite fragments. Moderately abundant crystals of alkali and plagioclase feldspar and quartz, minor biotite, an opaque oxide and amphibole. Upper bed is hard, massive and a prominent ledge former. About 55 feet thick.

Miocene(?) — TERTIARY

Tos_3 — Beds 15 - 18

Tuff, bedded, rhyolitic to quartz latitic, mostly light gray and thin pink bands. Moderately abundant pumice, ash shards, and obsidian fragments, scattered quartzite fragments. Moderately abundant to scattered crystals of quartz, alkali and plagioclase feldspar, and scattered biotite and an opaque oxide. Most beds are fairly good ledge formers. About 57 feet thick.

Tos_3 — Bed 14

Tuff, bedded, rhyolitic to quartz latitic, dark brick red at base, pinkish red in middle, and tan at top. Moderate number of pumice, ash shards, and obsidian fragments, scattered quartzite fragments. Moderately abundant crystals of quartz, alkali and plagioclase feldspar and biotite, scattered limonite blebs. Basal 4 feet is dense, generally massive, and breaks into sharply angular pieces. About 25 feet thick.

Tos_2 — Beds 10 - 13

Tuff, bedded, rhyolitic to quartz latitic, yellowish green, light gray, and red beds. Moderately abundant pumice and ash shard fragments, scattered obsidian and quartzite fragments. Moderately abundant crystals of quartz, alkali and plagioclase feldspar, scattered biotite and an opaque oxide. Yellowish-green porcellanitic stringers and blebs. Most beds form moderately good ledges. About 27 feet thick.

OAK SPRING FORMATION

Area covered in most places by more than 2 feet of tuffaceous soil.

Geologic boundary
Dashed where approximately located, dotted where concealed

22a — Top of individual key bed within geologic unit. *Number corresponds to number of bed in stratigraphic section.*

83 — Fault
Dashed where approximately located, dotted where concealed

15 — Attitude of bedding

Jointing, high angle

Jointing, vertical

D.H. No. 2 — Drill hole

Underground workings

Mapped by W. R. Hansen, R. W. Lemke, and W. L. Peterson, 1957

FIGURE I. GEOLOGIC MAP OF THE USGS TUNNEL AREA, NEVADA TEST SITE

0 25 50 100 150 200 FEET

Contour interval 10 feet
Datum is mean sea level